ABSTRACT OF DISCLOSURE

A method of handling datagrams in a network device coupled to other network devices is disclosed. The method includes the steps of receiving an incoming datagram at a port of the network device, determining an egress port for the incoming datagram based on a destination address contained in the incoming datagram and a lookup of an address resolution lookup (ARL) table and performing a lookup of the ARL table based on a source address contained in the incoming datagram to determine whether the source address has been learned previously. The method also includes the steps of writing an entry into the ARL table when the source address has not been learned previously, determining whether the other network devices have learned the source address when the source address has been learned previously and continuing to relay a learning message with the source address to the other network devices when it is determined that the other network devices have not learned the source address